

**Amendments to the Claims:**

1 1. (original) A method for automatically generating a network replication topology for  
2 use by a directory service in replicating a directory, comprising the computer-  
3 implemented steps of:  
4 reading a plurality of router configuration files; and  
5 generating the network replication topology representing one or more sites and one or  
6 more site links based on information in the plurality of router configuration  
7 files.

1 2. (original) The method of claim 1, wherein the information in the plurality of router  
2 configuration files includes router interface information and the step of generating the  
3 network topology is performed based on the router interface information.

1 3. (currently amended) The method of claim 2, wherein the step of generating the  
2 network topology comprises:  
3 determining at least one site by identifying a sub-network on a Local Area Network  
4 (LAN) interface; and  
5 generating a site reference for each site.

1 4. (currently amended) The method of claim 2, wherein the step of generating the  
2 network topology comprises:  
3 determining at least one site link by identifying a Wide Area Network (WAN)  
4 interface; and  
5 generating a site link reference for each site link.

1 5. (currently amended) The method of claim 1, wherein the step of generating the  
2 network topology comprises:

3 determining at least one site by identifying a router interface with a bandwidth  
4 exceeding a predefined threshold value; and

5 generating a site reference for each site.

1 6. (currently amended) The method of claim 1, wherein the step of generating the  
2 network topology comprises:

3 determining at least one site link by identifying a router interface with a bandwidth  
4 not exceeding a predefined threshold value; and

5 generating a site link reference for each site link.

1 7. (currently amended) The method of claim 1, wherein the step of generating the  
2 network topology comprises:

3 determining at least one site link by identifying a router interface with a packet round-  
4 trip-time exceeding a predefined threshold value; and

5 generating a site link reference for each site link.

1 8. (original) The method of claim 1, further comprising a computer-implemented step of:  
2 reading preprocessing information, the preprocessing information including override  
3 information for nullifying the information associated with a same one or more  
4 sites or site links from the plurality of router configuration files, wherein the  
5 network topology is generated based additionally on the override information.

- 1 9. (original) The method of claim 1, wherein the step of reading a plurality of router
- 2 configuration files includes reading from a network management system.
- 1 10. (original) The method of claim 1, wherein the step of reading a plurality of router
- 2 configuration files includes reading from a router query result.
- 1 11. (original) The method of claim 1, further comprising the computer-implemented steps
- 2 of:
  - 3 storing the replication topology in a database; and
  - 4 copying the replication topology from the database to the directory service.
- 1 12. (original) The method of claim 11, wherein the directory service is Active Directory
- 2 and the one or more site links is an Active Directory site link.
- 1 13. (original) The method of claim 11, wherein the directory service is Active Directory
- 2 and the one or more sites is an Active Directory site.
- 1 14. (original) A computer-readable medium carrying one or more sequences of
- 2 instructions for automatically generating a network topology for a directory service,
- 3 wherein execution of the one or more sequences of instructions by one or more
- 4 processors causes the one or more processors to perform steps of:
- 5 reading router interface information from a plurality of router configuration files;
- 6 generating the network topology representing one or more network sites and one or
- 7 more network site links based on the router interface information.

- 1 15. (original) The computer-readable medium of claim 14 wherein execution of the one or
- 2 more sequences of instructions by one or more processors causes the one or more
- 3 processors to perform the step of generating the network topology by causing the one
- 4 or more processors to perform a step of:
- 5 generating at least one site reference by identifying a sub-network on a Local Area
- 6 Network (LAN) interface.
- 1 16. (original) The computer-readable medium of claim 14 wherein execution of the one or
- 2 more sequences of instructions by one or more processors causes the one or more
- 3 processors to perform the step of generating the network topology by causing the one
- 4 or more processors to perform steps of:
- 5 generating at least one site link reference by identifying a Wide Area Network (WAN)
- 6 interface.
- 1 17. (original) The computer-readable medium of claim 14 wherein execution of the one or
- 2 more sequences of instructions by one or more processors causes the one or more
- 3 processors to perform the steps of:
- 4 storing the replication topology in a database; and
- 5 copying the replication topology from the database to the directory service.
- 1 18. (original) The computer-readable medium of claim 14, wherein the directory service is
- 2 Active Directory and the one or more site links is an Active Directory site link.
- 1 19. (original) The computer-readable medium of claim 14, wherein the directory service is
- 2 Active Directory and the one or more sites is an Active Directory site.

- 1 20. (currently amended) A computer system that ~~can~~ automatically generates a network
- 2 replication topology for use by a directory service in replicating a directory, the
- 3 system comprising:
  - 4 a network interface; and
  - 5 one or more processors connected to the network interface, the one or more
  - 6 processors configured for
  - 7 reading router interface information from a plurality of router configuration files;
  - 8 generating a network topology representing one or more network sites and one or
  - 9 more network site links based on the router interface information.
- 1 21. (original) The computer system of claim 20 wherein the network topology is
- 2 generated for use with a directory service and the one or more processors are further
- 3 configured for generating the network topology by generating one or more network
- 4 site references by identifying a sub-network on a Local Area Network (LAN)
- 5 interface.
- 1 22. (original) The computer system of claim 20 wherein the network topology is
- 2 generated for use with a directory service and the one or more processors are further
- 3 configured for generating the network topology by generating one or more site link
- 4 references by identifying a Wide Area Network (WAN) interface.
- 1 23. (original) The computer system of claim 20 wherein the network topology is
- 2 generated for use with a directory service and the one or more processors are further
- 3 configured for:

4           storing the replication topology in a database; and

5           copying the replication topology from the database to the directory service.

1   24. (currently amended) An apparatus that ~~can~~ automatically generates a network

2           topology for use in replicating a directory associated with a directory service, the

3           apparatus comprising:

4           means for reading a plurality of router configuration files; and

5           means for generating the network topology representing one or more sites and one or

6           more site links based on information in the plurality of router configuration

7           files.

1   25. (original) The apparatus of claim 24, further comprising:

2           means for determining at least one site by identifying a sub-network on a Local Area

3           Network (LAN) interface.

1   26. (original) The apparatus of claim 24, further comprising:

2           means for determining at least one site link by identifying a Wide Area Network

3           (WAN) interface.

1   27. (original) The apparatus of claim 24, further comprising:

2           means for storing the replication topology in a database; and

3           means for copying the replication topology from the database to the directory service.

1   28. (new) The method of Claim 1, further comprising:

2           reading a list of one or more router names from a source, wherein the source is a

3           network management system, a database, or a router query result;

4 generating a router name from the router configuration file associated with each of the  
5 one or more routers;  
6 comparing the one or more router names from the router configuration files to the list  
7 of one or more router names from the source, and  
8 upon a router name from the router configuration files not being in the list of one or  
9 more router names from the source, generating an exception.

1 29. (new) The method of claim 28, further comprising:  
2 generating a temporary site name for each router name from the router configuration  
3 file associated with each of the one or more routers; and  
4 associating each of the one or more site references determined from the router  
5 configuration file associated with each of the one or more routers with the  
6 temporary site name for the associated router.

1 30. (new) The method of claim 29, further comprising:  
2 generating a partial site link for each of the one or more site link references  
3 determined from the router configuration file associated with each of the one  
4 or more routers; and  
5 associating each partial site link with the temporary site name for the associated  
6 router.

1 31. (new) The method of claim 30, further comprising:  
2 generating a sub-network reference based on each of one or more “ip route”  
3 commands in the router configuration file associated with each of the one or  
4 more routers; and

5 associating each sub-network reference with the temporary site name for the  
6 associated router.

1 32. (new) The computer-readable medium of Claim 14, wherein the instructions, when  
2 executed by one or more processors, cause the one or more processors to perform:  
3 reading preprocessing information, the preprocessing information including override  
4 information for nullifying information associated with one or more sites or  
5 one or more site links from one or more router configuration files;  
6 wherein generating the network topology is based additionally on the override  
7 information.

1 33. (new) The computer-readable medium of claim 32, wherein the instructions, when  
2 executed by one or more processors, cause the one or more processors to perform:  
3 reading a list of one or more router names from a source, wherein the source is a  
4 network management system, a database, or a router query result;  
5 generating a router name from the router configuration file associated with each of the  
6 one or more routers;  
7 comparing the one or more router names from the router configuration files to the list  
8 of one or more router names from the source, and  
9 upon a router name from the router configuration files not being in the list of one or  
10 more router names from the source, generating an exception.

1 34. (new) The computer-readable medium of claim 33, wherein the instructions, when  
2 executed by one or more processors, cause the one or more processors to perform:

3 generating a temporary site name for each router name from the router configuration  
4 file associated with each of the one or more routers; and  
5 associating each of the one or more site references determined from the router  
6 configuration file associated with each of the one or more routers with the  
7 temporary site name for the associated router.

1 35. (new) The computer-readable medium of claim 34, wherein the instructions, when  
2 executed by one or more processors, cause the one or more processors to perform:  
3 generating a partial site link for each of the one or more site link references  
4 determined from the router configuration file associated with each of the one  
5 or more routers; and  
6 associating each partial site link with the temporary site name for the associated  
7 router.

1 36. (new) The computer-readable medium of claim 35, wherein the instructions, when  
2 executed by one or more processors, cause the one or more processors to perform:  
3 generating a sub-network reference based on each of one or more “ip route”  
4 commands in the router configuration file associated with each of the one or  
5 more routers; and  
6 associating each sub-network reference with the temporary site name for the  
7 associated router.

1 37. (new) The computer system of Claim 20, wherein the one or more processors are  
2 further configured for:

3 reading preprocessing information, the preprocessing information including override  
4 information for nullifying information associated with one or more sites or  
5 one or more site links from one or more router configuration files; and  
6 wherein generating the network topology is based additionally on the override  
7 information.

1 38. (new) The apparatus of Claim 20, further comprising:  
2 means for reading preprocessing information, the preprocessing information including  
3 override information for nullifying information associated with one or more sites  
4 or one or more site links from one or more router configuration files; and  
5 wherein the means for generating the network topology comprises means for generating  
6 the network topology based additionally on the override information.